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RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/823,240

DATE: 04/18/2001
TIME: 07:03:19

Input Set : A:\M0656-7064.txt
Output Set: N:\CRF3\04182001\I823240.raw

P.S
ENTERED

4 <110> APPLICANT: Frank B. Gertler
5 James E. Bear
6 Jurgen Wehland
7 Joseph Loureiro
9 <120> TITLE OF INVENTION: Methods and Products for Regulating Cell
10 Motility
12 <130> FILE REFERENCE: M0656/7064 (HCL)
C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/823,240
C--> 15 <141> CURRENT FILING DATE: 2001-03-30
17 <150> PRIOR APPLICATION NUMBER: 60/194,564
18 <151> PRIOR FILING DATE: 2000-04-03
20 <160> NUMBER OF SEQ ID NOS: 11
22 <170> SOFTWARE: FastSEQ for Windows Version 3.0
24 <210> SEQ ID NO: 1
25 <211> LENGTH: 10
26 <212> TYPE: PRT
27 <213> ORGANISM: Listeria monocytogenes
29 <220> FEATURE:
30 <221> NAME/KEY: UNSURE
31 <222> LOCATION: (1)...(1)
32 <223> OTHER INFORMATION: Xaa is Asp or Glu
34 <221> NAME/KEY: UNSURE
35 <222> LOCATION: (7)...(7)
36 <223> OTHER INFORMATION: Xaa is any amino acid
38 <400> SEQUENCE: 1
39 Xaa Phe Pro Pro Pro Pro Xaa Asp Asp Glu
40 1 5 10
42 <210> SEQ ID NO: 2
43 <211> LENGTH: 802
44 <212> TYPE: PRT
45 <213> ORGANISM: Mus musculus
47 <400> SEQUENCE: 2
48 Met Ser Glu Gln Ser Ile Cys Gln Ala Arg Ala Ala Val Met Val Tyr
49 1 5 10 15
50 Asp Asp Ala Asn Lys Lys Trp Val Pro Ala Gly Gly Ser Thr Gly Phe
51 20 25 30
52 Ser Arg Val His Ile Tyr His His Thr Gly Asn Asn Thr Phe Arg Val
53 35 40 45
54 Val Gly Arg Lys Ile Gln Asp His Gln Val Val Ile Asn Cys Ala Ile
55 50 55 60
56 Pro Lys Gly Leu Lys Tyr Asn Gln Ala Thr Gln Thr Phe His Gln Trp
57 65 70 75 80
58 Arg Asp Ala Arg Gln Val Tyr Gly Leu Asn Phe Gly Ser Lys Glu Asp
59 85 90 95
60 Ala Asn Val Phe Ala Ser Ala Met Met His Ala Leu Glu Val Leu Asn
61 100 105 110
62 Ser Gln Glu Ala Ala Gln Ser Lys Val Thr Ala Thr Gln Asp Ser Thr

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```

63          115          120          125
64 Asn Leu Arg Cys Ile Phe Cys Gly Pro Thr Leu Pro Arg Gln Asn Ser
65          130          135          140
66 Gln Leu Pro Ala Gln Val Gln Asn Gly Pro Ser Gln Glu Glu Leu Glu
67 145          150          155          160
68 Ile Gln Arg Arg Gln Leu Gln Glu Gln Arg Gln Lys Glu Leu Glu
69          165          170          175
70 Arg Glu Arg Met Glu Arg Glu Arg Leu Glu Arg Glu Arg Leu Glu Arg
71          180          185          190
72 Glu Arg Leu Glu Arg Glu Arg Leu Glu Gln Glu Gln Leu Glu Arg Gln
73          195          200          205
74 Arg Gln Glu Arg Glu His Val Glu Arg Leu Glu Arg Glu Arg Leu Glu
75          210          215          220
76 Arg Leu Glu Arg Glu Arg Gln Glu Arg Glu Arg Glu Arg Leu Glu Gln
77 225          230          235          240
78 Leu Glu Arg Glu Gln Val Glu Trp Glu Arg Glu Arg Arg Met Ser Asn
79          245          250          255
80 Ala Ala Pro Ser Ser Asp Ser Ser Leu Ser Ser Ala Pro Leu Pro Glu
81          260          265          270
82 Tyr Ser Ser Cys Gln Pro Pro Ser Ala Pro Pro Pro Ser Tyr Ala Lys
83          275          280          285
84 Val Ile Ser Ala Pro Val Ser Asp Ala Thr Pro Asp Tyr Ala Val Val
85          290          295          300
86 Thr Ala Leu Pro Pro Thr Ser Thr Pro Pro Thr Pro Pro Leu Arg His
87 305          310          315          320
88 Ala Ala Thr Arg Phe Ala Thr Ser Leu Gly Ser Ala Phe His Pro Val
89          325          330          335
90 Leu Pro His Tyr Ala Thr Val Pro Arg Pro Leu Asn Lys Asn Ser Arg
91          340          345          350
92 Pro Ser Ser Pro Val Asn Thr Pro Ser Ser Gln Pro Pro Ala Ala Lys
93          355          360          365
94 Ser Cys Ala Trp Pro Thr Ser Asn Phe Ser Pro Leu Pro Pro Ser Pro
95          370          375          380
96 Pro Ile Met Ile Ser Ser Pro Pro Gly Lys Ala Thr Gly Pro Arg Pro
97 385          390          395          400
98 Val Leu Pro Val Cys Val Ser Ser Pro Val Pro Gln Met Pro Pro Ser
99          405          410          415
100 Pro Thr Ala Pro Asn Gly Ser Leu Asp Ser Val Thr Tyr Pro Val Ser
101          420          425          430
102 Pro Pro Pro Thr Ser Gly Pro Ala Ala Pro Pro Pro Pro Pro Pro
103          435          440          445
104 Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro Pro Pro Pro Leu Pro Pro
105          450          455          460
106 Leu Ala Ser Leu Ser His Cys Gly Ser Gln Ala Ser Pro Pro Pro Gly
107 465          470          475          480
108 Thr Pro Leu Ala Ser Thr Pro Ser Ser Lys Pro Ser Val Leu Pro Ser
109          485          490          495
110 Pro Ser Ala Gly Ala Pro Ala Ser Ala Glu Thr Pro Leu Asn Pro Glu
111          500          505          510

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```

112 Leu Gly Asp Ser Ser Ala Ser Glu Pro Gly Leu Gln Ala Ala Ser Gln
113      515      520      525
114 Pro Ala Glu Ser Pro Thr Pro Gln Gly Leu Val Leu Gly Pro Pro Ala
115      530      535      540
116 Pro Pro Pro Pro Pro Pro Leu Pro Ser Gly Pro Ala Tyr Ala Ser Ala
117 545      550      555      560
118 Leu Pro Pro Pro Pro Gly Pro Pro Pro Pro Pro Pro Leu Pro Ser Thr
119      565      570      575
120 Gly Pro Pro Pro Pro Pro Pro Pro Pro Pro Leu Pro Asn Gln Ala
121      580      585      590
122 Pro Pro Pro Pro Pro Pro Pro Pro Ala Pro Pro Leu Pro Ala Ser Gly
123      595      600      605
124 Ile Phe Ser Gly Ser Thr Ser Glu Asp Asn Arg Pro Leu Thr Gly Leu
125      610      615      620
126 Ala Ala Ala Ile Ala Gly Ala Lys Leu Arg Lys Val Ser Arg Val Glu
127 625      630      635      640
128 Asp Gly Ser Phe Pro Gly Gly Gly Asn Thr Gly Ser Val Ser Leu Ala
129      645      650      655
130 Ser Ser Lys Ala Asp Ala Gly Arg Gly Asn Gly Pro Leu Pro Leu Gly
131      660      665      670
132 Gly Ser Gly Leu Met Glu Glu Met Ser Ala Leu Leu Ala Arg Arg Arg
133      675      680      685
134 Arg Ile Ala Glu Lys Gly Ser Thr Ile Glu Thr Glu Gln Lys Glu Asp
135      690      695      700
136 Arg Asn Glu Asp Ala Glu Pro Ile Thr Ala Lys Ala Pro Ser Thr Ser
137 705      710      715      720
138 Thr Pro Glu Pro Thr Arg Lys Pro Trp Glu Arg Thr Asn Thr Met Asn
139      725      730      735
140 Gly Ser Lys Ser Pro Val Ile Ser Arg Pro Lys Ser Thr Pro Ser Ser
141      740      745      750
142 Gln Pro Ser Ala Asn Gly Val Gln Thr Glu Gly Leu Asp Tyr Asp Arg
143      755      760      765
144 Leu Lys Gln Asp Ile Leu Asp Glu Met Arg Lys Glu Leu Ala Lys Leu
145      770      775      780
146 Lys Glu Glu Leu Ile Asp Ala Ile Arg Gln Glu Leu Ser Lys Ser Asn
147 785      790      795      800
148 Thr Ala
151 <210> SEQ ID NO: 3
152 <211> LENGTH: 5
153 <212> TYPE: PRT
154 <213> ORGANISM: Listeria monocytogenes
156 <400> SEQUENCE: 3
157 Phe Pro Pro Pro Pro
158 1 5
160 <210> SEQ ID NO: 4
161 <211> LENGTH: 5
162 <212> TYPE: PRT
163 <213> ORGANISM: Listeria monocytogenes
165 <400> SEQUENCE: 4

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```

166 Ala Pro Pro Pro Pro
167 1 5
169 <210> SEQ ID NO: 5
170 <211> LENGTH: 639
171 <212> TYPE: PRT
172 <213> ORGANISM: Listeria monocytogenes
174 <400> SEQUENCE: 5
175 Met Gly Leu Asn Arg Phe Met Arg Ala Met Met Val Val Phe Ile Thr
176 1 5 10 15
177 Ala Asn Cys Ile Thr Ile Asn Pro Asp Ile Ile Phe Ala Ala Thr Asp
178 20 25 30
179 Ser Glu Asp Ser Ser Leu Asn Thr Asp Glu Trp Glu Glu Glu Lys Thr
180 35 40 45
181 Glu Glu Gln Pro Ser Glu Val Asn Thr Gly Pro Arg Tyr Glu Thr Ala
182 50 55 60
183 Arg Glu Val Ser Ser Arg Asp Ile Lys Glu Leu Glu Lys Ser Asn Lys
184 65 70 75 80
185 Val Arg Asn Thr Asn Lys Ala Asp Leu Ile Ala Met Leu Lys Glu Lys
186 85 90 95
187 Ala Glu Lys Gly Pro Asn Ile Asn Asn Asn Ser Glu Gln Thr Glu
188 100 105 110
189 Asn Ala Ala Ile Asn Glu Glu Ala Ser Gly Ala Asp Arg Pro Ala Ile
190 115 120 125
191 Gln Val Glu Arg Arg His Pro Gly Leu Pro Ser Asp Ser Ala Ala Glu
192 130 135 140
193 Ile Lys Lys Arg Arg Lys Ala Ile Ala Ser Ser Asp Ser Glu Leu Glu
194 145 150 155 160
195 Ser Leu Thr Tyr Pro Asp Lys Pro Thr Lys Val Asn Lys Lys Lys Val
196 165 170 175
197 Ala Lys Glu Ser Val Ala Asp Ala Ser Glu Ser Asp Leu Asp Ser Ser
198 180 185 190
199 Met Gln Ser Ala Asp Glu Ser Ser Pro Gln Pro Leu Lys Ala Asn Gln
200 195 200 205
201 Gln Pro Phe Phe Pro Lys Val Phe Lys Lys Ile Lys Asp Ala Gly Lys
202 210 215 220
203 Trp Val Arg Asp Lys Ile Asp Glu Asn Pro Glu Val Lys Lys Ala Ile
204 225 230 235 240
205 Val Asp Lys Ser Ala Gly Leu Ile Asp Gln Leu Leu Thr Lys Lys Lys
206 245 250 255
207 Ser Glu Glu Val Asn Ala Ser Asp Phe Pro Pro Pro Thr Asp Glu
208 260 265 270
209 Glu Leu Arg Leu Ala Leu Pro Glu Thr Pro Met Leu Leu Gly Phe Asn
210 275 280 285
211 Ala Pro Ala Thr Ser Glu Pro Ser Ser Phe Glu Phe Pro Pro Pro Pro
212 290 295 300
213 Thr Asp Glu Glu Leu Arg Leu Ala Leu Pro Glu Thr Pro Met Leu Leu
214 305 310 315 320
215 Gly Phe Asn Ala Pro Ala Thr Ser Glu Pro Ser Ser Phe Glu Phe Pro
216 325 330 335

```

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```

217 Pro Pro Pro Thr Glu Asp Glu Leu Glu Ile Ile Arg Glu Thr Ala Ser
218           340           345           350
219 Ser Leu Asp Ser Ser Phe Thr Arg Gly Asp Leu Ala Ser Leu Arg Asn
220           355           360           365
221 Ala Ile Asn Arg His Ser Gln Asn Phe Ser Asp Phe Pro Pro Ile Pro
222           370           375           380
223 Thr Glu Glu Glu Leu Asn Gly Arg Gly Gly Arg Pro Thr Ser Glu Glu
224           385           390           395           400
225 Phe Ser Ser Leu Asn Ser Gly Asp Phe Thr Asp Asp Glu Asn Ser Glu
226           405           410           415
227 Thr Thr Glu Glu Ile Asp Arg Leu Ala Asp Leu Arg Asp Arg Gly
228           420           425           430
229 Thr Gly Lys His Ser Arg Asn Ala Gly Phe Leu Pro Leu Asn Pro Phe
230           435           440           445
231 Ala Ser Ser Pro Val Pro Ser Leu Ser Pro Lys Val Ser Lys Ile Ser
232           450           455           460
233 Ala Pro Ala Leu Ile Ser Asp Ile Thr Lys Lys Thr Pro Phe Lys Asn
234           465           470           475           480
235 Pro Ser Gln Pro Leu Asn Val Phe Asn Lys Lys Thr Thr Thr Lys Thr
236           485           490           495
237 Val Thr Lys Lys Pro Thr Pro Val Lys Thr Ala Pro Lys Leu Ala Glu
238           500           505           510
239 Leu Pro Ala Thr Lys Pro Gln Glu Thr Val Leu Arg Glu Asn Lys Thr
240           515           520           525
241 Pro Phe Ile Glu Lys Gln Ala Glu Thr Asn Lys Gln Ser Ile Asn Met
242           530           535           540
243 Pro Ser Leu Pro Val Ile Gln Lys Glu Ala Thr Glu Ser Asp Lys Glu
244           545           550           555           560
245 Glu Met Lys Pro Gln Thr Glu Glu Lys Met Val Glu Glu Ser Glu Ser
246           565           570           575
247 Ala Asn Asn Ala Asn Gly Lys Asn Arg Ser Ala Gly Ile Glu Glu Gly
248           580           585           590
249 Lys Leu Ile Ala Lys Ser Ala Glu Asp Glu Lys Ala Lys Glu Glu Pro
250           595           600           605
251 Gly Asn His Thr Thr Leu Ile Leu Ala Met Leu Ala Ile Gly Val Phe
252           610           615           620
253 Ser Leu Gly Ala Phe Ile Lys Ile Ile Gln Leu Arg Lys Asn Asn
254           625           630           635
256 <210> SEQ ID NO: 6
257 <211> LENGTH: 4
258 <212> TYPE: PRT
259 <213> ORGANISM: Homo sapien
261 <220> FEATURE:
262 <221> NAME/KEY: UNSURE
263 <222> LOCATION: (4)...(4)
264 <223> OTHER INFORMATION: Xaa is any amino acid
266 <400> SEQUENCE: 6
267 Cys Ala Ala Xaa
268 1

```

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

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DATE: 04/18/2001

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Input Set : A:\M0656-7064.txt

Output Set: N:\CRF3\04182001\I823240.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application Number

L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:39 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1

L:267 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6

L:281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7

L:295 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8